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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,362	03/12/2004	Tetsuya Ogata	R2184.0305/P305	7164

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EXAMINER	
GOMA, TAWFIK A	

ART UNIT	PAPER NUMBER
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,362	OGATA ET AL.	
	Examiner	Art Unit	
	TAWFIK GOMA	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-63* is/are pending in the application.

4a) Of the above claim(s) *4-63* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the amendment filed on 12/21/2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (US 5257131) in view of Yokota (US 5065380).

Regarding claim 1, Yoshida discloses an optical pickup comprising a diffraction element disposed at a position on an optical path of a light beam from the object (1, fig. 1 and 11, fig. 8), the position determined in accordance with a positional relation with the object (fig. 6 and col. 12 lines 28-65), wherein the diffraction element diffracts diffraction light at a diffraction efficiency depending on an incident angle of the light beam (fig. 9 and 37-37); and a photo detector that receives the diffraction light diffracted by said diffraction element and outputs an photoelectric signal (18, 19, fig. 5). Yoshida fails to disclose wherein the optical pickup is a tilt sensor for determining information related to a tilt of an object to a reference plane. In the same field of endeavor, Yokota discloses an optical pickup also used as a tilt sensor (col. 4 lines 22-42). It would have been obvious to one of ordinary skill in the art to use the pickup as a tilt sensor. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have used the optical pickup as a tilt sensor to apply a known technique to a known pickup device ready for improvement, to yield predictable results.

Regarding claim 2, Yoshida further discloses wherein an order of the diffraction light received by said photo detector is that of a diffracted light of a greatest intensity (15a, 18, fig. 5 and 15b, 19, fig. 5).

Regarding claim 3, Yoshida further discloses wherein said diffraction element is set so that the relation between the intensity of the diffraction light and the incident angle is substantially linear an a predetermined range of the incident angle (fig. 9 and col. 13 lines 38-58).

Response to Arguments

Applicant's arguments filed 12/21/2007 have been fully considered but they are not persuasive. Applicant's arguments that the use of the rationale provided in the office action (to apply a known technique to a known pickup device ready for improvement, to yield predictable results), is not a proper substitute for the Graham factors is misguided. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The office action properly determined the scope of Yoshida and Yokota, identified the difference between the primary reference (Yoshida) and the claims (the use of a tilt sensor), and cured the deficiency with the Yokota reference which uses an optical pickup as a tilt sensor. The office action also resolved that one of ordinary skill in the art would have made the combination to

apply a known technique to a known pickup device ready for improvement, to yield predictable results. This analysis is in no way a substitute for the Graham factors and the rationale provided for the combination is clearly supported in KSR. (holding "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR, 550 U.S at ___, at ___, 82 USPQ2d at 395; *See also* MPEP 2141).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Moreover, "A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." KSR, 550 U.S. at ___, 82 USPQ2d at 1397. "[I]n many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle."Id.

In response to applicant's arguments that the references are not in the same field of endeavor, the examiner contends that the references are in the same field of endeavor, the field being that of optical pickups used with optical media. Contrary to applicant's assertion that Yokota is directed only to optical video disk recording (applicant's arguments page 9), Yokota is in fact directed to "an optical pickup device used in CD (compact disk) player and an optical video disk device," and Yokota discloses that the pickup is used in a "CD player, or the like."

(col. 1 lines 6-12). Yoshida also discloses that the optical pickup is used with optical media (col. 11 lines 1-10). It is therefore clear that both of the pickups are in the same field of endeavor.

In response to applicant's argument that Yokota's optical pickup is not used "as a tilt sensor," this argument is not persuasive because applicant's argument seemingly contradicts itself. Applicant acknowledges that the optical pickup of Yokota is used to detect a title error (page 20 and Yokota col. 2 lines 53-57), but at the same time contends that the pickup is not used as a tilt sensor. A tilt sensor is by definition a device capable of detecting a tilt error, and the pickup of Yokota performs this function and is therefore a tilt sensor.

In response to applicant's argument regarding the positions of the diffraction elements of Yokota and Yoshida, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, the combination of references does not involve the position of the diffraction element of Yokota since this feature is fully disclosed by Yoshida.

In response to applicant's arguments that Yoshida fails to teach the diffraction grating positioned such that "the position determined in accordance with a positional relation with the object," because Yoshida fails to disclose wherein the position is adjusted with respect to any object, this argument is not persuasive because Yoshida clearly discloses that the differences incident angle of light and the Bragg angles of the gratings are set to be equal in order to achieve the desired focal result on the media (the object). (col. 12 lines 16-22 and lines 45-50).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAWFIK GOMA whose telephone number is (571)272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/
Supervisory Patent Examiner, Art Unit 2627

/Tawfik Goma/
Examiner, Art Unit 2627